Application No.: 10/534,351

Art Unit: 1796

Amendment under 37 CFR §1.111

Attorney Docket No.: 052512

**REMARKS** 

Claims 1-3 and 5-8 are pending in the present application. Claim 1 is herein amended.

Claim 4 is herein cancelled. New claim 8 has been added.

Support for newly amended claim 1 may be found in paragraph 0021 of the published

application, US 2006/0154838. Support for new claim 8 may be found in paragraph 0020 of the

published application, US 2006/0154838.

Claims 1-6 were rejected under 35 U.S.C. §102(b) as being anticipated by

Okuda (US 4,966,630).

The presently claimed invention is directed to a liquid cleaner, which includes a

hydroxide of an alkaline metal, such as potassium hydroxide, sodium hydroxide and lithium

hydroxide as an alkaline compound, as well as pure water.

Moreover, the presently claimed invention aims to provide an alkaline liquid cleaner

which can efficiently remove fine particles or impurities derived from various metals at a

semiconductor substrate surface. In contrast, Okuda aims to provide an anticorrosive pigment

which can be used for coating purposes, such as undercoating or primer coating purposes.

Thus, the presently claimed invention and Okuda differ in the problem to be solved and

the object of the invention; wherein each is accomplished by different technical ideas.

Also, the liquid cleaner of the presently claimed invention discloses a pH range of

8 to 13. In contrast, Okuda fails to provide any pH value.

Therefore, Applicants respectfully submit that the presently claimed invention is not

anticipated by the Okuda and traverses the rejection.

- 6 -

Application No.: 10/534,351

Art Unit: 1796

Claims 1-5 and 7 were rejected under 35 U.S.C. §102(b) as being anticipated by Sugihara et al. (US 5,302,311).

The liquid cleaner of the presently claimed invention comprises a hydroxide of an alkaline metal such as potassium hydroxide, sodium hydroxide and lithium hydroxide as an alkaline compound.

In contrast, Sugihara discloses only ammonia, organic amine (choline, TMAH, TEAM), and not the hydroxide of an alkaline metal for alkaline compounds of the presently claimed invention. Also, Sugihara does not state whether the hydroxides of the alkaline metal can be used for the cleaning solution disclosed.

In addition, Sugihara provides no disclosure on whether a hydroxide of an alkaline metal as an alkaline compound, as used in the presently claimed invention, can efficiently remove fine particles or impurities derived from various metals at a semiconductor substrate surface.

Therefore, Applicants respectfully submit that the presently claimed invention is not anticipated by the Sugihara and traverses the rejection.

Claims 1-5 and 7 were rejected under 35 U.S.C. §102(b) as being anticipated by Nohara (US 6,686,322).

The liquid cleaner of the presently claimed invention comprises a hydroxide of an alkaline metal such as potassium hydroxide, sodium hydroxide and lithium hydroxide as an alkaline compound.

In contrast, Nohara discloses only ammonia, an amine or a quaternary ammonium hydroxide such as THAH and not the hydroxide of an alkaline metal for alkaline compounds of

Application No.: 10/534,351

Art Unit: 1796

the presently claimed invention. Nohara does not disclose whether the hydroxide of the alkaline

metal can be used for a liquid cleaner.

Moreover, Nohara's invention aims to provide a cleaning agent which can effectively

remove resist residues formed in the process of producing semiconductor devices, residues

derived from conductive thin films of metals formed, photoresist films used as the etching mask

and contaminants on glass substrates in the process of producing substrates for liquid crystal

display panels.

Norhara discloses that problems exist when the cleaning agent for glass substrates for

liquid crystals are inorganic alkalis. In such a case, the alkali ions are adsorbed to the substrates

and remain there after the cleaning. These residual alkali ions occasionally cause problems on

electric properties of the substrates. It is particularly problematic in the substrates of thin film

transistors (TFT).

That is, Noraha discourages and teaches the negative aspects about cleaning agents using

inorganic alkalis, the hydroxides of alkaline metals.

In addition, in Nohara there is no disclosure whether a hydroxide of an alkaline metal as

an alkaline compound, as used in the presently claimed invention, can efficiently remove fine

particles or impurities derived from various metals at semiconductor substrate surface.

Therefore, Applicants respectfully submit that the presently claimed invention is not

anticipated by the Nohara and traverses the rejection.

Claims 1-7 were rejected under 35 U.S.C. §102(b) as being anticipated by

Abe (US 6,323,169).

- 8 -

Application No.: 10/534,351

Art Unit: 1796

The liquid cleaner of the presently claimed invention comprises a hydroxide of an alkaline metal such as potassium hydroxide, sodium hydroxide and lithium hydroxide as an alkaline compound.

In contrast, Abe discloses only ammonia, an amine or a quaternary ammonium hydroxide, such as THAH, and not the hydroxide of an alkaline metal for alkaline compounds of the presently claimed invention. Abe does not disclose whether a hydroxide of the alkaline metal can be used for the disclosed composition.

In addition, in Abe there is no disclosure whether a hydroxide of an alkaline metal as an alkaline compound, as used in the presently claimed invention, can efficiently remove fine particles or impurities derived from various metals at semiconductor substrate surface.

Therefore, Applicants respectfully submit that the presently claimed invention is not anticipated by the Abe and traverses the rejection.

Claims 1-5 and 7 were rejected under 35 U.S.C. §102(b) as being anticipated by Takashima (US 2004/0142835).

Takashima was published on July 22, 2004. The present patent application has an effective filing date of November 7, 2003, based on its international filing date. As such, the present patent application was filed well before the publication of Takashima and therefore Takashima is not valid prior art under 35 U.S.C. §102(b).

Takashima does have an earlier filing date of November 6, 2003, and could be considered prior art under 35 U.S.C. §102(e). However, the present patent application is entitled to an earlier effective filing date based on its foreign priority. The present patent application is entitled

Application No.: 10/534,351

Art Unit: 1796

to an effective filing date of November 8, 2002, based on its Japanese patent application, JP 2002-324853. JP 2002-324853 was filed on November 8, 2002.

Applicants respectfully submit a verified English language translation of the priority application, JP 2002-324853, filed on November 8, 2002. This will establish that Takashima is overcome as prior art under 35 U.S.C. §102(e).

Favorably reconsideration is earnestly solicited.

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

Application No.: 10/534,351

Art Unit: 1796

Amendment under 37 CFR §1.111

Attorney Docket No.: 052512

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

Westerman, Hattøri, Daniels & Adrian, LLP

Stephen G. Adrian Attorney for Applicants Registration No. 32,878 Telephone: (202) 822-1100

Facsimile: (202) 822-1111

SGA/BKM/ttw

Enclosure: English Language Translation JP 2002-324853